

Please type a plus sign (+) inside this box →

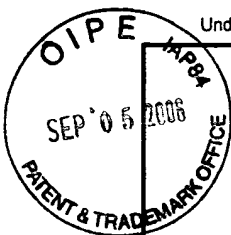


PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/697,828
Filing Date	October 29, 2003
First Named Inventor	ROSEN, STEVEN D.
Group Art Unit	1653
Examiner Name	MONSHIPOURI, MARYAM
Attorney Docket Number	UCAL-138DIV

Total Number of Pages in This Submission **12**

### ENCLOSURES (check all that apply)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment / Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Certified Copy of Priority Documents<br><input type="checkbox"/> Response to Missing Parts/<br>Incomplete Application<br><input type="checkbox"/> Response to Missing Parts<br>under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Assignment Papers<br>(for an Application)<br><input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a<br>Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br>Change of Correspondence<br>Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) | <input type="checkbox"/> After Allowance Communication<br>to Group<br><input type="checkbox"/> Appeal Communication to Board<br>of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to Group<br>(Appeal Notice, Brief, Reply Brief)<br><input checked="" type="checkbox"/> Petition for Certificate of<br>Correction (2 pgs.)<br><input checked="" type="checkbox"/> Certificate of Correction (1 pg.)<br><input checked="" type="checkbox"/> Other Enclosure(s) (please<br>identify below):<br>Copy of Notice of Allowance dated<br>3.10.06 (7 pgs.)<br>Copy of last page of Issue Patent (1 pg.)<br>Return Postcard |
|--|---|---|

Remarks

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Signing Attorney/Agent (Reg. No.)	EDWARD J. BABA, 52,581 BOZICEVIC, FIELD & FRANCIS, LLP
Signature	
Date	September 5, 2006

**Certificate  
of Correction**  
SEP 12 2006

EXPRESS MAIL LABEL NO. EV 686 489 752 US

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 13 2006



Express Mail No. EV 686 489 752 US

<b>PETITION FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.322 FOR PATENT AND TRADEMARK OFFICE ERROR</b>  Address to: Mail Stop DAC Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Attorney Docket Number	UCAL-138DIV
	First Named Inventor	STEVEN ROSEN
	Application Number	10/697,828
	Filing Date	October 29, 2003
	Patent Number	7,070,971
	Issue Date	July 4, 2006
	Title	GLYCOSYL SULFOTRANSFERASES GST-4 $\alpha$ , AND GST-6

Sir:

Applicants petition under 37 C.F.R. § 1.322 for a Certificate of Correction to correct errors in the claims for the above-identified patent due to Patent and Trademark Office error.

Transmitted herewith for filing is a Certificate of Correction for the above-identified patent. Please make the following corrections to Claim 1.

In Claim 1, column 247, line 34, please replace the word "75%" with the word -- 90% --.

Enclosed is a copy of the Notice of Allowance mailed on March 10, 2006, showing the Examiner's amendment of Claim 1 to recite 90% rather than 75%. Also enclosed, is a copy of the last page of the issued patent showing the incorrect language of the claims that resulted from Patent and Trademark Office error.

It is believed that no fee is due since the error was made by the Patent and Trademark Office. However, the Commissioner is hereby authorized to charge any fees under 37 C.F.R. § 1.20 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815.

Respectfully submitted,  
BOZICEVIC, FIELD & FRANCIS LLP

Date: Sept. 5, 2006

By: 

Edward J. Baba  
Registration No. 52,581

BOZICEVIC, FIELD & FRANCIS LLP  
1900 University Avenue, Suite 200  
East Palo Alto, CA 94303  
Telephone: (650) 327-3400  
Fax: (650) 327-3231

F:\DOCUMENT\UCAL\138div\Certificate of Correction Petition UCAL-138.rtf

SEP 13 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO. : 7,070,971  
DATED : July 4, 2006  
INVENTOR(S) : Steven Rosen, Jin Kyu Lee, Stefan Hemmerich

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In Claim 1, column 247, line 34, the word "75%" should be -- 90% --.

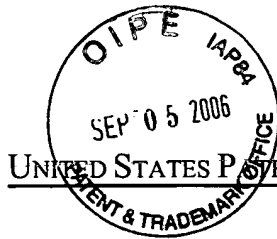
MAILING ADDRESS OF SENDER:

BOZICEVIC, FIELD & FRANCIS LLP  
1900 University Avenue, Suite 200  
East Palo Alto, CA 94303

PATENT NO: 7,070,971

No. of add'l copies  
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NOTICE OF ALLOWANCE AND FEE(S) DUE

24353 7590 03/10/2006

BOZICEVIC, FIELD & FRANCIS LLP  
1900 UNIVERSITY AVENUE  
SUITE 200  
EAST PALO ALTO, CA 94303

EXAMINER

MONSHIPOURI, MARYAM

ART UNIT

PAPER NUMBER

1653

DATE MAILED: 03/10/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/697,828

10/29/2003

Steven D. Rosen

UCAL-138DIV

9294

TITLE OF INVENTION: NOVEL GLYCOSYL SULFOTRANSFERASES GST-4ALPHA, GST-4BETA, & GST-6

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	06/12/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

RECEIVED

MAR 14 2006

Bozicevic, Field, & Francis  
PB

Confirm PTA 4/10/06  
Intv. Summary 4/10/06  
IF DUE 6/10/06  
File conf'd 6/10/06 OK 3/14/06



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[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,828	10/29/2003	Steven D. Rosen	UCAL-138DIV	9294
24353	7590	03/10/2006		
BOZICEVIC, FIELD & FRANCIS LLP 1900 UNIVERSITY AVENUE SUITE 200 EAST PALO ALTO, CA 94303				
EXAMINER MONSHIPOURI, MARYAM				
ART UNIT			PAPER NUMBER	
1653				
DATE MAILED: 03/10/2006				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.



# Notice of Allowability

Application No.

10/697,828

Examiner

Maryam Monshipouri

Applicant(s)

ROSEN ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1,31,32,36 and 37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                    |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>Filed 3/1/06</u> |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                           |
|   | 9. <input type="checkbox"/> Other _____  |

Serial Number: 10/697,828  
Art Unit 1653

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Ms. Paula A. Borden on 3/2/2006.

#### **Examiner's Amendment to the Claims**

Cancel claims 2, 5-30, 33-35, 38-39.

In claim 1, line 3, after "at least about ", delete "75%", and substitute therefor --- 90% ---.

In claim 1, line 4, after "SEQ ID NO:8", insert --- wherein said GST polypeptide exhibits N-acetyl glucosamine-6-O-sulfotransferase activity ---.

In claim 36, line 1, delete "claim 34 " and substitute therefor --- claim 1 ---.

In claim 37, line 1, delete "claim 34 " and substitute therefor --- claim 1 ---.

#### **Examiner's Amendments to the Specification**

In page 1, underneath the title insert the following:

---- This application is a Divisional of U.S. Application No. 09/593,828 filed 6/13/2000, now U.S. Patent No. 6,852,528 issued 2/8/2005, which claims priority to U.S. Provisional Application No. 60/144,694, filed 7/20/1999. ---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 1, 31-32, 36-37 are directed to a glycosyl sulfotranferase (GST) of specific amino acid composition and specifically claimed homologs thereof with the same activity. Claimed GST polypeptides (i.e. full length polypeptide and its mentioned



Serial Number: 10/697,828  
Art Unit 1653

homologs) are free of prior art. Further, the prior art does not teach or suggest preparing such specifically claimed products. Hence said products are also non-obvious.

**Claims 1, 31-32, 36-37 are allowed.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 4:30 p.m. except for alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weber Jon P. can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

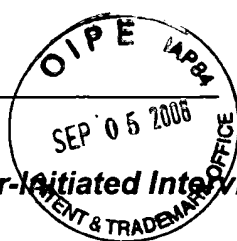
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*M. Monshipouri*

Maryam Monshipouri Ph.D.

Primary Examiner

\*\*\*



# Examiner-Initiated Interview Summary

Application No.

10/697,828

Applicant(s)

ROSEN ET AL.

Examiner

Maryam Monshipouri

Art Unit

1653

All Participants:

Status of Application: \_\_\_\_\_

(1) Maryam Monshipouri.

(3) \_\_\_\_\_

(2) Ms. P. A. Borden.

(4) \_\_\_\_\_

Date of Interview: 1 March 2006

Time: \_\_\_\_\_

Type of Interview:

☒ Telephonic

☐ Video Conference

☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☐ No

If Yes, provide a brief description:

## Part I.

Rejection(s) discussed:

112 first paragraph,

Claims discussed:

1-2, 30, 34-36

Prior art documents discussed:

## Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

## Part III.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed: lack of enablement issues and written description issues directed to said claims were discussed. The examiner requested increasing percentage identity in claims 1-2 and 34-36 and reciting function in said claims. Ms. Borden agreed with the proposed changes to the claims and gave authority to the examiner to amend the claims in an Examiner's amendment.

-continued

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ttgcctagag atgaaattaa actaattgaa	aacatttgct ggacactgat ggatcatcta	3600
ggatatccaa agtttatgga ctaa		3624

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What is claimed is:

1. A glycosyl sulfotransferase (GST) polypeptide present in other than its natural environment, wherein said GST polypeptide comprises an amino acid sequence having at least about 75% amino acid sequence identity to the amino acid sequence set forth in SEQ ID NO:8 wherein said GST polypeptide exhibits N-acetyl glucosamine-6-O-sulfotransferase activity.

2. The GST polypeptide of claim 1, wherein said GST polypeptide comprises the amino acid sequence set forth in SEQ ID NO:8.

30 3. The GST polypeptide of claim 1, wherein said GST polypeptide catalyzes the transfer of a sulfate group from a donor compound to an acceptor compound.

35 4. The GST polypeptide of claim 1, wherein said polypeptide is encoded by a nucleic acid comprising a nucleotide sequence having at least about 90% nucleotide sequence identity to SEQ ID NO:4.

5. The GST polypeptide of claim 1, wherein said polypeptide is encoded by a nucleic acid comprising the nucleotide sequence set forth in SEQ ID NO:4.

\* \* \* \* \*